

American Telecommunications Certification Body Inc.
6731 Whittier Ave, McLean, VA 22101

November 11, 2003

RE: Luna iMonitoring

FCC ID: RIM-ICCU

I have a few comments on the above referenced Application.

- 1) Please provide photographs to show the placement of the part 25 Module, as well as top/bottom photographs of this module (with and without shields).

Response: Please refer to the revised internal photograph exhibit uploaded with this response.

- 2) The users manual mentions that the device is field programmable and upgradeable, while a cover letter mentions only professional installation. Who has access to the software for the device. The software for connection to the device appears to show adjustment for various TX power levels and AMP power modes (page 27). Page 28 of the users manual also shows a test mode that allows the device to be hop-stopped. The end user should not have access to such control of the device (15.15(b)). Please explain.

Response: Please refer to the revised manual uploaded with this response, and note the following:

- a) Concerning the field programmable statement:

Only the installer has access to the software mentioned. The statement "field programmable and upgradeable" has been changed to "installer programmable and upgradeable". The descriptions of the CFR, EFM, TLM on page 4 and the WPM on page 5 have been changed to reflect this.

- b) Concerning the power and amp levels:

The CFR description on page 4 has been changed to the following:

Other features include programmable output power to an upper limit as defined in Appendix A, low cost, and the ability to configure and upgrade the unit by the installer.

The following has been added to the Configuration Menu Description on page 22:
The AmpSetting and XmitPower controls are available only to reduce the power below the authorized limits stated Appendix A of this document when desired, the controls will not allow power greater than the authorized limits.

- 3) Please explain the derivation of limits 95.9, 78.7, 97.1, 82.2, 96.2, 80.4 given in tables 9-2 through 9-4. These do not appear to be based on the results of the fundamental - 20 dB from section 6 of the report.

Response: The tables have been corrected. The limit is based on 20 dB below the carrier. Since the unit has a bandwidth around 100 KHz, and the band edge plots are taken at 30 KHz, the level shown on the Band Edge would be lower.

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4) The levels in 6 of the report do not appear to correlate to the power reported for this device. Please explain.

Response: The plots listed in part 6 represent the maximum field strength found on the open site. Meanwhile the calculation would give a worst-case value of what the EIRP should be. The maximum calculated EIRP would be 0.09 W based on the field strength value, where the power output plus the antenna gain give us 0.078W.

5) The users manual (page 49) mentions an output power of 17.4 dBm nominal, while the maximum power tested was 17.0 dBm. Note that the preferred method for measurement of this signal would be a Spectrum analyzer with $VBW \geq RBW \geq 20$ dB bandwith (prefer $RBW = 1$ MHz or greater). Please explain and/or correct affected exhibits.

Response: The power measurement was performed with a power meter and was checked with the appropriate settings on a spectrum analyzer.

6) The results of 4639 MHz given in Table 9-4 do fall in a restricted band and are subject to the limits of 54 dBuV/m. Please correct.

Response: Please refer to the revised test report uploaded with this response.

7) For purposes of Average measurements in section 9.3, please verify that the carrier was hop stopped and non-pulsing during these tests. If the device was not appropriately hop stopped with a non-pulsing carrier, then the use of the AVG detector using standard $RBW = 1$ MHz and $VBW = 10$ Hz may not be allowed.

Response: The unit was set to a mode where the hop was stopped, and with a non-pulsing carrier, which allowed us to perform an average measurement.

8) Please explain compliance of the EUT to 15.247(g)/(h) and 2.1033(b)(10).

Response: Please refer to the revised FHSS description uploaded with this response.

9) There have been multiple changes to part 25 recently. It may be possible that the TX may now be required to be certified. We are investigating these changes and will let you know what we determine as soon as we can.

Response: The client is aware that there have been multiple changes to Part 25, but needs to have this product certified as the rules stand today, in order to meet business commitments. Please advise us of the definitive FCC responses once you receive them, so that the client can maintain and ensure continued compliance.

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The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information may result in application termination. Correspondence should be considered part of the permanent submission and may be viewed from the Internet after a Grant of Equipment Authorization is issued. Please do not respond to this correspondence using the email reply button. In order for your response to be processed expeditiously, you must submit your documents through the AmericanTCB.com website. Also, please note that partial responses increase processing time and should not be submitted. Any questions about the content of this correspondence should be directed to the sender.